

5905-586

4/23/2014

Page 1 of 15



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

Bill Washburn  
Helena Chemical Company  
225 Schilling Boulevard, Suite 300  
Collierville, TN 38017

APR 23 2014

Subject: Notification; Per PR-Notice 98-10  
TAPOUT WFP  
EPA Reg. No. 5905-586  
Date Submitted: April 18, 2014

Proposed Alternate Brand Name:  
Mossy Oak Bio Logic Weed Reaper – Grass Control

Dear Mr. Washburn:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated April 18, 2014 for the product referenced above. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10. The label submitted with the application has been stamped "Notification" and will be placed in our records. In addition, the alternate brand name "*Mossy Oak Bio Logic Weed Reaper – Grass Control*" is acceptable and has been added to the product file.

If you have any questions regarding this letter, please contact Kable Bo Davis at (703) 306-0415 or [davis.kable@epa.gov](mailto:davis.kable@epa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "K. Montague".

Kathryn Montague  
Product Manager 23  
Herbicide Branch  
Registration Division (7505P)

2715

 <p><b>EPA</b> United States <b>Environmental Protection Agency</b> Washington, DC 20460</p>	<input type="checkbox"/> Registration <input type="checkbox"/> Amendment <input checked="" type="checkbox"/> <b>Other:</b>	OPP Identifier Number
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**Application for Pesticide - Section I**

1. Company/Product Number <b>5905-586</b>	2. EPA Product Manager <b>Kathryn Montague</b>	3. Proposed Classification <input type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) <b>TAPOUT WFP</b>	PM# <b>23</b>	
5. Name and Address of Applicant (Include ZIP Code)  <b>Helena Chemical Company</b> <b>225 Schilling Boulevard, Suite 300</b> <b>Collierville, TN 38017</b>  <input type="checkbox"/> Check if this is a new address	6. <b>Expedited Review.</b> In accordance with FIFRA Section 3(c)(3) (b)(1), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ <b>NOTIFICATION</b> Product Name _____ <b>APR 23 2014</b>	

**Section - II**

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below

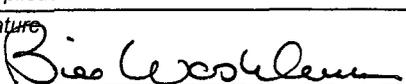
**Explanation:** Use additional page(s) if necessary. (For Section I and Section II.)

Notification of Alternate Brand Name (MOSSY OAK® BIO LOGIC® WEED REAPER - GRASS CONTROL) per PR Notice 98-10. This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 USC Sec 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

**Section - III**

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes* <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No If "Yes" Unit Packaging wgt.    No. per container	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No If "Yes" Package wgt.    No. per container		<input type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify)	
*Certification must be submitted					
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container		5. Location of Label Directions <input type="checkbox"/> On Label <input type="checkbox"/> On labeling accompanying product	
6. Manner in Which Label is Affixed to Product			<input type="checkbox"/> Lithograph <input type="checkbox"/> Other: _____ <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled		

**Section - IV**

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name <b>Bill Washburn</b>	Title <b>Registration Specialist</b>	Telephone No. (Include Area Code) <b>901-752-4420</b>
I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received <b>(Stamped)</b>
2. Signature 		
3. Title <b>Registration Specialist</b>	4. Typed Name <b>Bill Washburn</b>	
5. Date <b>4/18/2014</b>		



4 8 15

[Brackets] indicate alternate marketing language

**MOSSY OAK® BIO LOGIC®**

**WEED REAPER - GRASS CONTROL**

- [Kills Grassy weeds without harming broad leaf wildlife food plots when used as directed]
- [Kills annual and perennial grasses without harming broad leaf wild life food plots]
- [Kills annual and perennial grasses]
- [Only kills grasses and grassy weeds.]
- [Kills annual and perennial grasses in ornamentals]
- [Ideal for controlling grasses in clover, alfalfa, soybeans, peas, and other legume or broad leaf wild life food plots.]
- [A Part of the Foxworthy Outdoors Line of Outdoor Products]
- [Insert Foxworthy Outdoors logo]
- [Kills Crabgrass, Quackgrass, Barnyardgrass, Foxtails, Bermudagrass & Johnsongrass]
- [Rainfast In one hour]
- [Kills Grassy weeds without harming [broadleaf wildlife food plots][and][or][ornamentals] when used as directed
- [Kills grasses in wildlife food plots]
- [This XX container covers XX sq ft]
- [This XX container covers XX acres]
- [Treats Up to XX sq ft]
- [Treats Up to XX acres]
- [WEED REAPER - GRASS CONTROL can be used to remove grassy weeds on plots grown for wildlife food.]

**NOTIFICATION**

**APR 23 2014**

<b>Active Ingredient</b>	<b>By Wt.</b>
*Clethodim .....	12.6%
Other Ingredients.....	87.4%
Total.....	100.0%

Contains Petroleum Distillates  
 \*(E)..2..[1 -[[[(3-chloro-2-propenyl)oxy]imino]propyl]-5-[2-(ethylthio)propyl]-3-hydroxy-2-cyclohexen-1 -one  
 Contains 0.97 lbs. Clethodim per gal.

**KEEP OUT OF REACH OF CHILDREN**  
**CAUTION**  
**See Additional Precautions inside Booklet**

**EPA Reg. No. 5905-586**  
**EPA Est. No.**  
**AD 083012**  
**NET CONTENTS**

**Manufactured For**  
**Helena Chemical Company**  
**225 Schilling Boulevard, Suite 300**  
**Collierville, TN 38017**

5815

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS & DOMESTIC ANIMALS**

**CAUTION**

Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

**FIRST AID**

<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor immediately for advice</li> </ul>
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF INHALED:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, and then give artificial respiration, preferably mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>

**HOT LINE NUMBER**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact (800) 424-9300, collect day or night, for emergency medical treatment information.

**NOTE TO PHYSICIAN**

Ingestion of this product or subsequent vomiting can result in aspiration of light hydrocarbon liquid, which can cause pneumonitis. If ingested, probable mucosal damage may contraindicate the use of gastric lavage. May pose an aspiration pneumonia hazard. Contains petroleum distillate.

**USER SAFETY RECOMMENDATIONS**

Users should:

- Wash hands before eating, drinking, and chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing.
- As soon as possible, wash thoroughly and change into clean clothing.

**ENVIRONMENTAL HAZARDS**

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply where runoff is likely to occur. Do not apply where weather conditions favor drift from areas treated. Do not contaminate water when disposing of equipment washwater or rinsate.

The use of this product may pose a hazard to the federally designated endangered species of Solano Grass and Wild Rice. Use of this product is prohibited in the following areas where the species are known to exist:

Solano Grass: Solano County, California: the vernal lakes area bounded by the Union Pacific Railroad and Hastings Road to the north, Highway 113 to the east, Highway 12 to the south and Travis Air Force Base to the west.

Wild Rice: Hays County, Texas.

6 8 15

**PHYSICAL OR CHEMICAL HAZARDS:**

Do not use or store near heat or open flame.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**READ ENTIRE LABEL AND PAMPHLET. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.**

**NON-AGRICULTURAL USE REQUIREMENTS**

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses. Keep all unprotected persons out of operating areas, or vicinity where there may be drift. Do not enter treated areas without protective clothing until sprays have dried.

**STORAGE AND DISPOSAL**

Do not contaminate water, food or feed by storage or disposal.

**Pesticide Storage:** Store in original container in a cool dry place, out of reach of children, preferably a locked storage cabinet.

**Pesticide Disposal and Container Handling:** Nonrefillable container. Do not reuse or refill this container. **If empty:** Place in trash or offer for recycling, if available. **If Partly Filled:** Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

**PRODUCT INFORMATION**

For use on wildlife food plots to control grassy weeds.

**WEED REAPER - GRASS CONTROL** is a selective postemergence herbicide for control of annual and perennial grasses. **WEED REAPER - GRASS CONTROL** does not control sedges or broadleaf weeds.

Apply when grassy weeds are actively growing. Weather conditions such as sunny skies and warm weather promote the growth of grassy weeds and make them more susceptible to herbicide control. Treated grass weeds show a reduction in vigor and growth. Early chlorosis/necrosis of younger plant tissue is followed by a progressive collapse of the remaining foliage. Symptoms will generally be observed in 7 to 14 days after application, depending on grass species treated and environmental conditions.

**MIXING INSTRUCTIONS**

- Add half of the needed water to the sprayer/spray tank
- Add **WEED REAPER - GRASS CONTROL**
- Fill tank to desired level

**BROADCAST APPLICATIONS**

**How to Apply**

- Use of sufficient spray volumes and pressure is essential to ensure complete coverage.
- Use a minimum of 5 gallons or a maximum of 40 gallons of spray solution per acre.
- Under the following conditions a minimum of 10 gals per acre is required: perennial grasses, volunteer corn, drought or stress conditions, heavy grass pressure or when grasses are at or near maximum height. Failure to use 10 gallons per acre under these conditions can result in poor coverage and reduced grass control requiring repeat applications.
- Spray pressure should reflect a minimum of 30 psi and a maximum of 60 psi at the nozzle.
- Do not use flood nozzles.

- Apply as close to target plants as practical while maintaining a good spray pattern for adequate coverage.
- Repeat application may be applied after 14 days

**Use Rates**

- For annual grasses 1 to 4 inches tall apply 9 fl oz per acre
- For annual grasses 4 to 12 inches tall apply 16 fl oz per acre
- For perennial grasses 2 to 6 inches apply 12 fl oz per acre.
- For perennial grasses 6 inches or taller apply up to 32 fl oz per acre
- Consult the "Directions for Annual Grasses" and "Directions for Perennial Grasses" tables for rates for specific grasses
- A second application may be needed for some grasses and for taller grasses

**HAND SPRAYER/SPOT APPLICATION**

- Apply with a hand trigger sprayer or pump up hand sprayer.
- Adjust sprayer to deliver a fine spray, spray plants until lightly wet, but not dripping.
- Use 1 fl oz **WEED REAPER - GRASS CONTROL** per gallon of water.
- Spray directly on grassy weeds till lightly wet.
- One gallon of spray mix covers 1300 square feet.

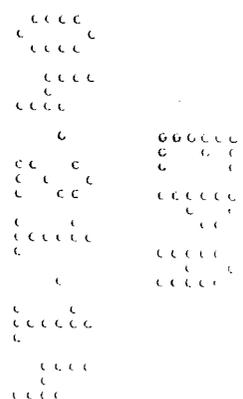
For hard to control weeds, make a second application 2 to 3 weeks after the first application

**TANK MIXES**

Read tank mix product label for rates and weeds controlled. Always read and follow label directions for all tank mix products before using. The most restrictive labeling of any tank mix product must be followed.

**DIRECTIONS FOR ANNUAL GRASSES**

- Apply only to actively growing grasses at specified weed heights.
- Apply when the first grass weed species in a mixed grass weed population reaches the specified growth stage for treatment.
- Use the high rate under heavy grass pressure and/or when grasses are at maximum height.



8 7 15

GRASS SPECIES	SCIENTIFIC NAME	WEED HEIGHT* (inches)	APPLICATION RATES	
			MINIMUM RATE Fl. Oz./A	MAXIMUM RATE*** Fl. Oz./A
Barnyardgrass	<i>Echinochloa crus-galli</i>	2 to 8	9	16
Broadleaf Signalgrass	<i>Brachiaria platyphylla</i>	2 to 6	9	16
Brome				
California	<i>Bromus carinatus</i>	2 to 6	9	16
Cheat	<i>Bromus secalinus</i>	2 to 6	9	16
Downy	<i>Bromus tectorum</i>	2 to 6	9	16
Ripgut	<i>Bromus diandrus</i>	2 to 6	9	16
Canarygrass	<i>Phalaris canariensis</i>	1 to 4	9	16
Crabgrass				
Hairy	<i>Digitaria adscendens</i>	2 to 6**	9	16
Large	<i>Digitaria sanguinalis</i>	2 to 6**	9	16
Smooth	<i>Digitaria ischaemum</i>	2 to 6**	9	16
Southern	<i>Digitaria ciliaris</i>	2 to 6**	9	16
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	2 to 6**	9	16
Fall Panicum	<i>Panicum dichotomiflor</i>	2 to 8	9	16
Field Sandbur	<i>Cenchrus incertus</i>	2 to 6	9	16
Foxtail				
Giant	<i>Setaria faberi</i>	2 to 12	9	16
Green	<i>Setaria viridis</i>	2 to 8	9	16
Yellow	<i>Setaria glauca</i>	2 to 8	9	16
Goosegrass	<i>Eleusine indica</i>	2 to 6**	9	16
Itchgrass	<i>Rottboellia cochinchinensis</i>	2 to 6	9	16
Junglerice	<i>Echinochloa colona</i>	2 to 6	9	16
Lovegrass (Stinkgrass)	<i>Eragrostis cilianensis</i>	2 to 6	9	16
Rabbitsfootgrass	<i>Polypogon monspeliensis</i>	1 to 4	9	16
Red Rice	<i>Oryza sativa</i>	1 to 3	9	16
Ryegrass				
Hardy	<i>Lolium remotum</i>	2 to 6	9	16
Italian	<i>Lolium multiflorum</i>	2 to 6	9	16
Seedling Johnsongrass	<i>Sorghum halepense</i>	4 to 10	9	16
Shattercane	<i>Sorghum bicolor</i>	6 to 18	9	16
Southwestern Cupgrass	<i>Eriochloa gracilis</i>	2 to 6	9	16
Sprangletop				
Amazon	<i>Leptochloa panicoides</i>	2 to 6	9	16
Bearded	<i>Leptochloa fascicularis</i>	2 to 6	9	16
Mexican	<i>Leptochloa uninervia</i>	2 to 6	9	16
Red	<i>Leptochloa filiformis</i>	2 to 6	9	16
Texas Panicum	<i>Panicum texanum</i>	2 to 6	9	16
Volunteer Cereals				
Barley	<i>Hordeum vulgare</i>	2 to 6	9	16
Oats	<i>Avena sativa</i>	2 to 6	9	16
Rye	<i>Secale cereale</i>	2 to 6	9	16
Wheat	<i>Triticum aestivum</i>	2 to 6	9	16
Volunteer Corn	<i>Zea mays</i>	Up to 12	6	12
Volunteer Corn	<i>Zea mays</i>	Up to 24	9	14
Volunteer Corn	<i>Zea mays</i>	Up to 36	12	16
Volunteer Grain Sorghum	<i>Sorghum bicolor</i>	8 to 12	9	16
Wild Oats	<i>Avena fatua</i>	2 to 6	9	16
Wild Proso Millet	<i>Panicum miliaceum</i>	2 to 10	9	16
Witchgrass	<i>Panicum capillare</i>	2 to 8	9	16
Woolly Cupgrass	<i>Eriochloa villosa</i>	2 to 8	9	16

\*Generally occurs between 3-leaf stage and tillering.

\*\*Length of lateral growth.

\*\*\* Use the higher rate for taller grass.



TOLERANT PLANTS		
Alfalfa	Peas	Garden and Red Beets
Carrots	Southern Peas	Mustard
Clover, Sweet, White and Other Species	Sugarbeets	Peanuts
Flax	Turnips	Radish
Lablab	Canola (not for canola grown in California)	Soybeans
Parsnips	Chufa	Sunflower

**RESTRICTIONS AND LIMITATIONS**

- Do not apply more than 32 fl oz of **WEED REAPER - GRASS CONTROL** per acre per year on wildlife food plots
- Do not apply if rain is expected within 1 hour of application, as control may be unsatisfactory.
- Do not mow prior to application.
- Avoid getting spray or spray drift on susceptible grass crops as injury will occur.
- Minor leaf spotting can occur on treated plants under certain conditions. New foliage is not affected.
- Avoid spraying in windy conditions (windy conditions are when winds are greater than 10 miles per hour).
- Avoid spraying when winds are gusty.
- Do not spray on grassy food plants such as corn, sorghum, wheat, barley, rice, rye and millet.
- Do not apply under conditions of stress. Applying **WEED REAPER - GRASS CONTROL** under conditions that do not promote active grass growth will reduce herbicide effectiveness. These conditions include drought, excessive water, extremes in temperature, low humidity and grasses either partially controlled or stunted from prior pesticide applications. Grasses under these kinds of stressful conditions will not absorb and translocate **WEED REAPER - GRASS CONTROL** effectively, and will be less susceptible to herbicide activity.
- Application on Long Island, New York, is restricted to no more than 32 fl oz of **WEED REAPER - GRASS CONTROL** (0.25 lb a.i) per acre per season.

**For use in Ornamentals to control grassy weeds**

For ornamental plant uses, **WEED REAPER - GRASS CONTROL** can be used to control labeled grass weeds in and around outdoor ornamentals.

**IMPORTANT**

**WEED REAPER - GRASS CONTROL** successfully controls weeds in newly transplanted and established non-grassy ornamentals. Plant tolerance to **WEED REAPER - GRASS CONTROL** at labeled rates has been found to be acceptable for the indicated genera and species listed below. Due to variability within species, crop growth stage, environmental conditions, and application techniques, it is recommended that the user determine if herbicide can be used safely on a few plants prior to widespread application. Neither the seller nor the manufacturer of **WEED REAPER - GRASS CONTROL** has investigated the safety factor to ornamental plants not listed on the label.

**MIXING INSTRUCTIONS**

- Add half of the needed water to the sprayer/spray tank
- Add **WEED REAPER - GRASS CONTROL**
- Fill tank to desired level

**HAND SPRAYER/SPOT APPLICATION**

- Apply with a hand trigger sprayer or pump up hand sprayer.
- Adjust sprayer to deliver a fine spray, spray plants until lightly wet, but not dripping.
- Use 1 fl oz **WEED REAPER - GRASS CONTROL** per gallon of water.
- Spray directly on grassy weeds till lightly wet.
- One gallon of spray mix covers 1300 square feet.

For hard to control weeds, make a second application 2 to 3 weeks after the first application

The following plants have shown a tolerance for **WEED REAPER - GRASS CONTROL** applications:

**ORNAMENTAL TREES**

COMMON NAME	SCIENTIFIC NAME	COMMON NAME	SCIENTIFIC NAME
Alder, Red	<i>Alnus rubra</i>	Golden Chain Tree	<i>Laburnum anagyroides</i>
Ash	<i>Fraxinus</i> spp.	Maples	<i>Acer</i> spp.
Basswood	<i>Tilia</i> spp.	Mulberry, White	<i>Morus alba</i>
Birch, European	<i>Betula pendula</i>	Oaks	<i>Quercus</i> spp.
White	<i>Betula nigra</i>	Olive, Wild	<i>Elaea gnus angustifolia</i>
Birch, River	<i>Betula papyrifera</i>	Redbud, Eastern	<i>Cercis canadensis</i>
Birch, White	<i>Malus halliana</i>	Sweet Gum, American	<i>Liquidambar styraciflua</i>
Crabapple, Flowering	<i>Cornus florida</i>		
Dogwood, Flowering			

**GROUND COVERS**

COMMON NAME	SCIENTIFIC NAME
Bugleweed, Carpet	<i>Ajuga reptans</i>
Ivy, English	<i>Hedera helix</i>
Japanese Spurge	<i>Pachysandra terminalis</i>
Lilyturf	<i>Liriope muscari</i>
Moneywort	<i>Lysimachia nummulana</i>
Mondo Grass, White	<i>Ophiopogon jaburan</i>
Mondo Grass Dwarf	<i>Ophiopogo japonicus</i>
Periwinkle, Lesser	<i>Vinca minor</i>

**GARDEN FLOWERS AND PLANTS**

\*slight foliage or flower speckling has been observed on these species.

COMMON NAME	SCIENTIFIC NAME	COMMON NAME	SCIENTIFIC NAME
Ageratum	<i>Ageratum</i> spp.	Jasmine Tobacco	<i>Nicotiana alata</i>
Alyssum*, Sweet	<i>Lobularia maritima</i>	Loosestrife	<i>Lythrum salicaria</i>
Asparagus Fern	<i>Asparagus setaceus</i>	Marigold	<i>Tagetes</i> spp.
Bleeding Heart	<i>Dicentra spectabilis</i>	Partridgeberry	<i>Mitchella repens</i>
Cast Iron Plant	<i>Aspidistra elatior</i>	Petunia*	<i>Petunia hybrida</i>
Chrysanthemum	<i>Chrysanthemum</i> spp.	Phlox	<i>Phlox</i> spp.
Cinquefoil	<i>Potentilla</i> spp.	Pinks	<i>Dianthus</i> spp.
Coleus	<i>Coleus</i> spp.	Portulaca	<i>Portulaca grandiflora</i>
Coralbells	<i>Heuchera san guinea</i>	Salvia	<i>Salvia</i> spp.
Cranesbill	<i>Geranium</i> spp.	Saxifrage	<i>Saxifraga</i> spp.
Dahlia	<i>Dahlia</i> spp.	Sedum	<i>Sedum</i> spp.
Daisy, Trailing	<i>Osteospermum fruticosum</i>	Selloum	<i>Philodendron selloum</i>
African	<i>Hemerocallis</i> spp.	Snapdragon*	<i>Antirrhinum majus</i>
Daylily	<i>Seneclo cineraria</i>	Sweet Flag	<i>Acorus gramineus</i>
Dusty Miller	<i>Euonymus</i> spp.	Tickseed	<i>Coreopsis grandiflora</i>
Euonymus	<i>Gazania</i> spp.	Touch-Me-Not	<i>Impatiens</i> spp.
Gaza nia	<i>Pelargonium hortorum</i>	Verbena	<i>Verbena</i> spp.
Geranium, House	<i>Cuphea hyssopifolia</i>	Violet	<i>Viola</i> spp.
Heather, False	<i>Hosta fortunei</i>	Yarrow, Common	<i>Achillea millefolium</i>
Hosta	<i>Iris</i> spp.	Zinnia	<i>Zinnia elecans</i>
Iris			

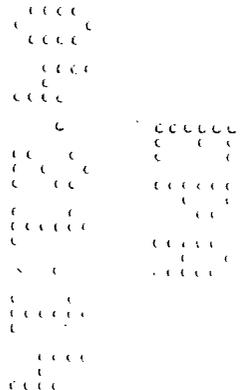
**SHRUBS**

\*Slight foliage or flower speckling has been observed on these species.

Abelia	Abelia spp.	Jasmine, Asiatic	Trachelospermum asiaticum
Anise, Purple	liicium floridanum	Jasmine, Star	Trachelospermum jasminoides
Aucuba	Aucuba spp.	Juniper	Juniperus spp.
Azalea*	Rhododendron spp.	Lantana	Lantana spp.
Bamboo	Bambusa spp.	Nandina* Bamboo,	Nandinia domestica
Barberry, Japanese	Berberis thunbergil	Heavenly	Nerium oleander
Barberry, Magellan	Berberis buxifolia	Oleander, Common	Mahonia aquifolium
Bayberry	Myrica pensylvanica	Oregon Grape	Photinia spp.
Bottlebrush	Callistemon citrinus	Photinia	Pittosporum spp.
Boxwood, Common	Buxus sempetvirens	Pittosporum	Podocarpus spp.
Camellia, Common	Camellia japonica	Podocarpus	Ligustrum spp.
Candytuft	Iberis sempeivirens	Privet	Pyracantha
Cleyera	Cleyera japonica	Rhododendron	Rhododendron spp.
Coralberry	Ardisia crenata	Rose	Rosa spp.
Crape Myrtle	Lagerstroemia indica	Spiraea	Spiraea bumalda
Coyote Brush	Baccharis pilularis	Sweet Olive	Osmanthus fragrans
Fig, Creeping	Ficus pumila	Viburnum	Viburnum thus
Gardenia	Gardenia spp.	Wisteria	Wisteria spp.
Holly	Ilex spp.	Yellow Sage/Shrub	Lantana camara
Honeysuckle	Lonicera spp.	Verbena	
Indian Hawthorn	Raphiolepis indica		
Jasmine	Jasminum spp.		

**DIRECTIONS FOR ANNUAL GRASSES IN ORNAMENTALS**

- Apply only to actively growing grasses at specified weed heights.
- Apply when the first grass weed species in a mixed grass weed population reaches the specified growth stage for treatment.
- Use the high rate under heavy grass pressure and/or when grasses are at maximum height.



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GRASS SPECIES	SCIENTIFIC NAME	WEED* HEIGHT (inches)	APPLICATION RATES	
			MINIMUM RATE fl. oz./A <sup>(1)</sup>	MAXIMUM RATE <sup>(2)</sup>
Barnyardgrass	<i>Echinochloa crus-galli</i>	2 to 8	12	32
Broadleaf Signalgrass	<i>Brachiaria platyphylla</i>	2 to 6	12	32
Brome				
California	<i>Bromus carinatus</i>	2 to 6	12	32
Cheat	<i>Bromus secalinus</i>	2 to 6	12	32
Downy	<i>Bromus tectorum</i>	2 to 6	12	32
Ripgut	<i>Bromus diandrus</i>	2 to 6	12	32
Canarygrass	<i>Phalaris canariensis</i>	1 to 4	12	32
Crabgrass				
Hairy	<i>Digitaria adscendens</i>	2 to 6**	12	32
Large	<i>Digitaria sanguinalis</i>	2 to 6**	12	32
Smooth	<i>Digitaria ischaemum</i>	2 to 6**	12	32
Southern	<i>Digitaria ciliaris</i>	2 to 6**	12	32
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	2 to 6**	12	32
Fall Panicum	<i>Panicum dichotomiflorum</i>	2 to 8	12	32
Field Sandbur	<i>Cenchrus incertus</i>	2 to 6	12	32
Foxtail				
Giant	<i>Setaria faberi</i>	2 to 12	12	32
Green	<i>Setaria viridis</i>	2 to 8	12	32
Yellow	<i>Setaria glauca</i>	2 to 8	12	32
Goosegrass	<i>Eleusine indica</i>	2 to 6**	12	32
Itchgrass	<i>Rottboellia cochin</i>	2 to 6	12	32
Junglerice	<i>Echinochloa colona</i>	2 to 6	12	32
Lovegrass (Stinkgrass)	<i>Eragrostis ciliaris</i>	2 to 6	12	32
Rabbitsfootgrass	<i>Polypogon monspeliensis</i>	1 to 4	12	32
Red Rice	<i>Oryza sativa</i>	1 to 3	12	32
Ryegrass				
Hardy	<i>Lolium remotum</i>	2 to 6	12	32
Italian	<i>Lolium multiflorum</i>	2 to 6	12	32
Seedling Johnsongrass	<i>Sorghum halepense</i>	4 to 10	12	32
Shattercane	<i>Sorghum bicolor</i>	6 to 18	12	32
Southwestern Cupgrass	<i>Eriochloa gracilis</i>	2 to 6	12	32
Sprangletop				
Amazon	<i>Leptochloa panicoides</i>	2 to 6	12	32
Bearded	<i>Leptochloa fascicularis</i>	2 to 6	12	32
Mexican	<i>Leptochloa uninervis</i>	2 to 6	12	32
Red	<i>Leptochloa filiformis</i>	2 to 6	12	32
Texas Panicum	<i>Panicum texanum</i>	2 to 6	12	32
Volunteer Cereals				
Barley	<i>Hordeum vulgare</i>	2 to 6	12	32
Oats	<i>Avena sativa</i>	2 to 6	12	32
Rye	<i>Secale cereale</i>	2 to 6	12	32
Wheat	<i>Triticum aestivum</i>	2 to 6	12	32
Volunteer Corn	<i>Zea mays</i>	4 to 12	12	16
Volunteer Corn	<i>Zea mays</i>	12 to 24	12	32
Volunteer Grain Sorghum	<i>Sorghum bicolor</i>	8 to 12	12	32
Wild Oats	<i>Avena fatua</i>	2 to 6	12	32
Wild Proso Millet	<i>Panicum miliaceum</i>	2 to 10	12	32
Witchgrass	<i>Panicum capillare</i>	2 to 8	12	32
Woolly Cupgrass	<i>Eriochloa villosa</i>	2 to 8	12	32

\*Generally occurs between 3-leaf stage and tillering.

\*\*Length of lateral growth.

<sup>(1)</sup> 16 fl. oz./A = approximately 0.4 fl. oz./1000 sq. ft.

<sup>(2)</sup> 32 fl. oz./A = approximately 0.8 fl. oz./1000 sq. ft.

DIRECTIONS FOR ANNUAL BLUEGRASS CONTROL WITH TAPOUT IN ORNAMENTALS			
GRASS SPECIES	WEED STAGE	APPLICATION RATES	
		MINIMUM RATE fl. oz./A	MAXIMUM RATE fl. oz./A
Annual Bluegrass ( <i>Poa annua</i> )	To 4-leaf	12	32
Apply under favorable soil moisture and humidity that exists within a few days after rainfall or within 7 days after irrigation. Grass needs to be actively growing at time of application(s).			
Apply at weed stage indicated on the label, as reduced control can be expected with more mature annual bluegrass.			
Use the high rate under heavy grass pressure and/or when annual bluegrass is more mature.			

**DIRECTIONS FOR PERENNIAL GRASSES IN ORNAMENTALS**

- Apply only to actively growing grasses at specified weed heights.
- Apply when the first grass weed species in a mixed grass weed population reaches the specified growth stage for treatment.
- Use the high rate under heavy grass pressure and/or when grasses are at maximum height.

GRASS SPECIES	WEED HEIGHT (inches)	APPLICATION RATES	
		MINIMUM RATE fl. oz./A <sup>(1)</sup>	MAXIMUM RATE <sup>(2)</sup> fl. oz./A
<i>Bermudagrass (Cynodon dactylon)</i>			
First Application	3 (or up to 6' runners)	12	32
Repeat Application(s) (if regrowth occurs)	3 (or up to 6' runners)	12	32
<i>Foxtail Barley (Hordeum jubatum)</i>			
First Application	2 to 6	12	
Repeat Application(s) (if regrowth occurs)	2 to 6	12	32
<i>Quackgrass (Elytrigia repens)</i>			
First Application	4 to 8	12	
Repeat Application(s) (if regrowth occurs)	4 to 8	12	32
<i>Rhizome Johnsongrass (Sorghum halepense)</i>			
First Application	12 to 24	2	
Repeat Application(s) (if regrowth occurs)	6 to 18	9	32
<i>Wirestem Muhly (Muhlenbergia frondosa)</i>			
First Application	4 to 8	12	
Repeat Application(s) (if regrowth occurs)	4 to 8	12	32

<sup>(1)</sup> 16 fl. oz./A = approximately 0.3 fl. oz./1000 sq. ft.

<sup>(2)</sup> 32 fl. oz./A = approximately 0.8 fl. oz./1000 sq. ft.

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### RESTRICTIONS AND LIMITATIONS

- Do not apply more than 64 fl oz of **WEED REAPER - GRASS CONTROL** per acre per year on ornamentals
- Do not apply if rain is expected within 1 hour of application, as control may be unsatisfactory.
- Avoid getting spray or spray drift on susceptible grasses as injury will occur.
- Minor leaf spotting can occur on treated plants under certain conditions. New foliage is not affected.
- Avoid spraying in windy conditions (windy conditions are when winds are greater than 10 miles per hour).
- Avoid spraying when winds are gusty.
- Do not apply under conditions of stress. Applying **WEED REAPER - GRASS CONTROL** under conditions that do not promote active grass growth will reduce herbicide effectiveness. These conditions include drought, excessive water, extremes in temperature, low humidity and grasses either partially controlled or stunted from prior pesticide applications. Grasses under these kinds of stressful conditions will not absorb and translocate **WEED REAPER - GRASS CONTROL** effectively, and will be less susceptible to herbicide activity.

### CONDITIONS OF SALE – LIMITED WARRANTY AND LIMITATIONS OF LIABILITY AND REMEDIES

**Read the Conditions of Sale - Warranty and Limitations of Liability and Remedies before using this product. If the terms are not acceptable, return the product, unopened, and the full purchase price will be refunded.**

*The directions on this label are believed to be reliable and should be followed carefully. Insufficient control of pests and/or injury to the crop to which the product is applied may result from the occurrence of extraordinary or unusual weather conditions, the failure to follow the label directions, or good application practices, all of which are beyond the control of Helena Chemical Company (the "Company") or seller. In addition, failure to follow label directions may cause injury to crops, animals, man or the environment. The Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purpose referred to in the directions for use subject to the factors noted above which are beyond the control of the Company. The Company makes no other warranties or representations of any kind express or implied, concerning the product, including no implied warranty of merchantability or fitness for any particular purpose, and no such warranty shall be implied by law.*

*The exclusive remedy against the Company for any cause of action relating to the handling or use of this product shall be limited to, at Helena Chemical Company's election, one of the following:*

1. Refund of the purchase price paid by buyer or user for product bought, or
2. Replacement of the product used

*To the extent consistent with applicable law, the Company shall not be liable and any and all claims against the Company are waived for special, indirect, incidental, or consequential damages or expense of any nature, including, but not limited to, loss of profits or income. The Company and the seller offer this product and the buyer and user accept it, subject to the foregoing conditions of sale and limitation of warranty, liability and remedies.*

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